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Education, Change and the Longue Durée: The Fate of the Book

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Abstract

The physical form of the book known as the codex has been described as nothing less than "the most powerful object of our time," as the "concrete form" of "the Western episteme." The book, in other words, is an epochally and epistemologically foundational medium. The book's physical nature, its typical contents, the habits and practices associated with its use, and the way that these are acquired, can thus be said to together constitute the paradigm for knowing. This article begins with an examination of book culture—one which provides long-familiar demarcations of knowledge and ignorance, development and depravation that are starting to lose their force. Appealing to the notion of the longue durée, this paper then turns to the history and contemporaneity of the book in educational discourse. In concluding, it considers what the changing educational significance of the book can tell us about change in education itself, and what this ongoing change might mean for us today.

Keywords: educational media, history of education, philosophy of education, book culture, reading instruction

Introduction

I went to university about 30 years ago, at the dawn of the microcomputer. These computers were expensive, immobile boxes that only responded to coded commands; but today I hold a smartphone in my hand that is over 10,000 times more powerful and infinitely more flexible. This incredible technological revolution, however, is all but invisible when I now go back to schools as a professor in educational technology.

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Yes: There are teachers using interactive whiteboards, and students sneaking peeks at their phones or using a tablet or Chromebook. But I still see teachers covering material via lectures and students using textbooks—just as they do in my own university. The question is inevitable: "Why has education changed so little when media and technology have changed so much?" I was not satisfied by the standard explanations: That we're at the cusp of an educational revolution (we always are) or that educators are "laggards" (they work very hard). Instead, I decided to look at how questions of change and stability are understood by people with less of a stake in the game, by historians who focus more on a well-documented past than on an uncertain future.

By looking back hundreds, even thousands of years, it is possible to show how education is not at all opposed to technology or change. Instead, teaching children and young people is deeply connected to the most basic technologies of thought and communication, and to the changes that they have only very gradually undergone. These basic technologies are those of text and writing—not just evolving tablets and pens, but also writing systems themselves. Technologies of these kinds generally do not change over years or decades, but rather, over centuries or millennia. Even Roman letter forms in the print version of this article are found in nearly identical form on ancient Roman ruins from over 2000 years ago.

This type of change and stability is not the kind explained by today's managerial or technological change models—ones that would label some individuals as "innovators" and others the "late majority" or "laggards" (e.g., Rogers 2003). Instead, it is the change of what one 20th century historian Ferdinand Braudel (1982) referred to as the longue durée. The longue durée, Braudel explains, means firmly rejecting the "short time span," of "daily life, [of] our illusion, [of] our hasty awareness" (p. 33). Instead of focusing on individual school days or technological product release cycles it "means becoming used to a slower tempo, which sometimes almost borders on the motionless" (p. 33).

What does educational change look like from this perspective? Change certainly exists, but it sometimes does indeed seem to "border on the motionless." In other work, I have illustrated this by describing both continuities and changes in the forms of the textbook and the lecture. Both of these educational forms can readily be traced back as far as the beginning of the modern era, back to the invention of the Middle Ages. I have shown that these two forms display remarkable continuity over time. The lecture still involves speaker who is "authorized" in some way speak to an audience of students, while the textbook still represents a compendium of content that can be said to be "educational" in the way it is distilled, presented and interconnected. Of course, both lecture and textbook have also changed in many ways since their modern emergence some 500 years ago, but what has changed the most, I argued, are our understandings of ourselves as the speaker or audience for the lecture or the reader of the textbook: We no longer see ourselves as

¹ See: Friesen, N. (2017). The Textbook and the Lecture: Education in a New Media Age. Baltimore: The Johns Hopkins University Press

working to capture the "spirit" of the lecturer or of the textbook author as was the case in the Romantic era more than 200 years ago. Nor do we understand ourselves as almost worshipfully memorizing the content of canonical books (i.e. ones earlier regarded as textbooks) that were read aloud in the lecture, as was the case both before and after the invention of the printing press.

However, in this article I look briefly at a rather different form or medium. This is one that is not particular to the university or the school classroom, but that can be said to join these sometimes isolated locations with the broader world of media production, consumption and circulation. It is a medium whose past and contemporary status has indeed received some academic attention as of late (e.g., Piper 2012; Houston 2016), but whose significance in education has only been discussed anecdotally (e.g. Doyle 2014).² This is form or medium of the book. The physical form of the book, known as the codex—pages bound together on one end, protected by a cover—has been described as nothing less than "the most powerful object of our time" (Houston 2016, n.p.), as the "concrete form" of "the Western episteme" 4 (Kittler 2015, p. 38). The book, in other words, is an epochally and epistemologically foundational medium. The book's physical nature, its typical contents, the habits and practices associated with its use, and the way that these are acquired, can thus be said to together constitute the paradigm for knowing, knowledge and for learning itself. It is in these physical terms that the book is defined here. As I will argue in this paper, the physical self-containment and structure of the book are reinforced by its printed contents, which are generally arranged in a linear and hierarchical manner that is itself similarly self-referential and self-contained: Hans Blumenberg had ascribed to the book the same power that he attributes to "myth"—namely, a "power, that the [book] summons in itself, in that it achieves the production of totality." "The power to bring the disparate, widely differentiated, countervailing, foreign and familiar together," Blumenberg says, "is in the end essential to the book, regardless of the subject-matter on which this is executed" (1981, p. 17-18).5 Even academic books, which may make copious use of footnotes that frequently direct readers to outside texts and sources, keep them within the realm of textuality, if not also within the collections of the academic library.

However, as a medium—something designed to disappear behind that which it mediates—I show that the book is always much more than the sum of its parts. The linear, self-contained content that it mediates requires certain types of engagement from its users, or rather, readers. These three factors, form, content and engagement, are central elements of

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² One exceptional source that considers specifically the *educational* dimensions of this issue is Kittler's (1992) Discourse Networks, 1800/1900; other exceptions, to my knowledge, are in German or French and are untranslated; e.g. Chartier, A.-M. (2007). *L'école et la lecture obligatoire: Histoire et paradoxes des pratiques d'enseignement de la lecture*. Paris: Retz; Böhme, J. (2006). *Schule am ende der Buchkultur: Medientheoretische Begründungen schulischer Bildungsarchitekturen*; and Sting. S. (1998). *Schrift, Bildung und Selbst: Eine pädagogische Geschichte der Schriftlichkeit*. Weinheim: Beltz.

³ Note that for the purposes of this paper, the terms "medium" and "form" are used interchangeably.

⁴ For Foucault, *episteme* refers to "the conditions of possibility of all knowledge... [existing] in any given culture and at any given moment... whether expressed in a theory or silently invested in a practice" (2005, p. 183).

⁵ All quotes taken from foreign-language sources have been translated by the author.

what can be called "book culture"—a loosely-defined set of practices, values and beliefs arising from the book's use, form, contents, production, circulation, etc. In this article, I begin by considering this culture, seeing in the book's form content and typical uses—long-familiar demarcations of knowledge and ignorance, development and depravation that are starting to lose their force. Appealing to the notion of the longue durée, I then turn to the history and contemporaneity of the book specifically as it is evident in educational discourse. I conclude by considering what the educational significance of the book—both past and present—can tell us about educational change, and what it might mean for us today.

The Decline of the Book

The book's decline, alluded to above, is readily evident in terms of its physical form, its content, and the type of engagement it implies. It is also palpable in the broader "culture of the book." Each of these is addressed, in turn, below.

The Book as Physical Artefact

To "read" a book, to engage with its physical *form*, no longer necessarily means to turn the pages of a codex. In the case of ebooks, it can be a matter of swiping and scrolling on a smart phone or tablet; for audio books, it is a question of putting on a headset and pressing "play." Powerful data and knowledge, meanwhile, are typically *not* shown as shown as residing behind the doors of the library, but as coursing through networks, becoming tangible and visible only in the soft blue glow of a computer or laptop screen. If it is the physical form of the book that helped make it "the most powerful object of our time"—a veritable embodiment of a way of knowing—then today, it seems that there are other objects, with their own forms of organization and their own epistemic power, that can readily take its place.

Today's new and competing epistemic, even epochal objects, it is clear, are *digital*—with portable networked touchscreen devices (i.e. smartphones or tablets) now almost inescapably functioning as a kind of antithesis to the book. The typical content of the book—the organization and self-containment through which it achieves its "production of totality"—is similarly endangered. Whereas the book provides a rigidly-organized, self-contained whole, held together by a kind of totalizing, almost "centripetal" power that draws the reader inward (e.g., figure 2), the screen presents us with the opposite: It is something that constantly points and tempts us to things outside of any simple sense of self-containment: to the fragmented communications of social media, the latest text, tweet or email, to the events of the day, to today's traffic or tomorrow's weather. In the place of the book's isolating inward pull, the screen can be said to pull one outward, and away from the book's potential for both abstraction and rarefaction: It tends to draw us to things much more concrete, things generally characterized by their topicality, their indexical

relation to our present time and (sometimes) place. Finally, whereas we have been witnessing a multi-decade boom in the penetration of networked digital devices of all kinds, the book (with the notable exception of children's books) has been experiencing something rather different. Specifically, since the peak year of 2007, as one report puts it, "sales of books, in both print and digital formats, are struggling around the world" (Graham, 2016, n.p.; see also Persanti, 2016).

The Book as Engagement

The type of engagement demanded by books is also on the decline. As this paper goes on to show, the precise nature of this engagement can vary widely; however, given the nature of the book and the codex themselves, it is one that requires a commitment from the reader over multiple days if not weeks or months. As an often isolated and isolating activity, reading a book under contemporary conditions is perhaps uniquely *exclusive* among contemporary media forms: Whereas one can read an instant message or listen to an audiobook on the street or while multitasking, books do not so easily accommodate this competition for attention. Indeed, a good book seems to call us instead to sit down in a comfortable place and shut out the rest of the world. The centripetal self-containment that marks both the form and content of the book, in other words, seems to be readily reproduced in the type of engagement it demands of its "users" as well: It pulls them inwards and away from a world of the concerns and distractions of the moment.⁶

The Culture of the Book

But the most important and perhaps most elusive evidence of decline of the book comes from the culture of the book. By "book culture," I do not refer to an isolated subculture of bespectacled persons haunting libraries and bookstores. I refer instead to habits and norms of thought and action that are indeed conditioned by the book, but that are also part of everyday life. Many of the most important elements of this culture derive from the type of engagement required by the book itself: The restraint required by the mutual exclusivity of book reading with many other activities, the sustained and uninterrupted focus it demands, and even the book's own totalizing, self-enclosed organization. To draw a contemporary comparison, these characteristics require a type of thought and action that is rather different than what currently dominates the public sphere as I write this paper: The public behavior of "out of control" celebrities and politicians—e.g., Kanye West, Boris Johnson,—and, of course, the man who has been called the first "postliterate" president, Donald Trump (e.g., see: Wiesenthal, 2016; Heer, 2017). Nothing, it seems, could be more distant from the single-minded focus and constraint demanded by a book, and the linear and hierarchical order it imposes on the mind. In his Disappearance of Childhood (1993), Neil Postman points out how these qualities reflect what he calls "the biases of print,"

⁶ This is what is implied throughout this paper when the term "reading" is used. Reading and literacy are now generally viewed as competencies independent of culture, context or medium (e.g., printed page or screen). However, in this paper, "reading" refers to the type of engagement just described; it also designates participation in a culture like the one described immediately below.

noting that they include "the capacity to think logically and sequentially, the capacity to distance oneself from symbols, the capacity to manipulate high orders of abstraction, the capacity to defer gratification. And, of course, the capacity for extraordinary feats of self-control" (p. 42). If the book indeed exemplifies the Western episteme and is "the most powerful object of our time," then it is one that entails considerable control and containment. At the same time, however, this means that its decline in our culture can be seen as similarly epistemically foundational and epochal.



Figure 1 Book culture under conditions of American West in the mid-19th century. This image illustrates a poem published by Bret Harte in 1904, titled "Dickens in Camp." It imagines one possible moment in the sensational American reception of Dicken's *Old Curiosity Shop* (e.g., see: Garber 2013). In this case, it shows laborers camped in the American West, listening to the story of little Nell with rapt attention. It is difficult to imagine reading and the book playing such a role among similar strata of American (or Western) society today. Licensed from Alamy.com.

Reading and Literacy over the Longue Durée

However, in order to put the admittedly "short time span" of these contemporary developments into perspective, this paper now turns to the vastly slower tempo of the *longue durée*—and specifically, to the domain of education. The story of the book and its changing social significance ultimately goes back 2000 years to ancient Rome, when its compact physical arrangement provided fugitive Christians with a form much more portable than conventional scrolls for their gospels and epistles (Norman, 2018, n.p.). The *longue durée* covered here, however, is rather shorter. It begins well after the invention of the printing press, but still at a time when books were relatively rare: To the Stuart Restoration, specifically to philosopher John Locke's *Essay Concerning Human Understanding* (1680). This was a time when the book was transitioning from being the objectified embodiment of religious authority—a Bible or a confessional that was worshipfully read and memorized world-for-word—to become an object of entertainment

and passionate involvement. This new experience of reading, as Kittler puts it, seems to have been "as hallucinatory" as watching "films" (1985 n.p.), and the health effects—particularly on the young—were seen as still more extreme. For example, it was not unusual for members of the upper echelons of British society—from Queen Mary on down—to see themselves as being permanently weakened or damaged by childhood bookreading (see: Johns 1998, pp. 380-387; 408-413). Adults were also deeply affected by the words and ideas they read: "seventeenth-century men and women" as Mack (1992) concludes, simply "felt certain kinds of knowledge" through their thinking and reading (p. 23; emphasis in original). Such experiences may well have played a role in Locke's comments on the book and education:

All the artificial and figurative application of words eloquence hath invented, are for nothing else but to insinuate wrong ideas, move the passions, and thereby mislead the judgment... they are certainly, in all discourses that pretend to inform or instruct, wholly to be avoided. If this were done... many of the books extant might be spared ...several of those great volumes, swollen with ambiguous words... would shrink into a very narrow compass. (1680, p. 106)

"Artificial and figurative... words," Locke is saying, result in mistaken ideas, inflamed passions and clouded judgement. As a result, "many of the books extant" should be avoided in education, and, if not, their content greatly reduced. But books can do much more harm than this, Locke goes on to say, particularly when they are used by children in school:

Many children, imputing the pain they endured at school to their books they were corrected for, so join those ideas together, that a book becomes their aversion, and they are never reconciled to the study and use of them all their lives after; and thus reading becomes a torment to them, which otherwise possibly they might have made the great pleasure of their lives. (p. 369)

This complaint about the pressures that book-reading place on the young certainly echoes across the *longue durée* of educational history. Indeed, it seems difficult to find figures in educational reform who do *not* raise the issue. For example, almost a century after Locke, Jean Jacques Rousseau's famously decried children's early exposure to books in his *Emile*; *or on Education* (1762):

I hate books; they only teach us to talk about things we know nothing about... When I get rid of children's lessons, I get rid of the chief cause of their sorrows, namely their books. Reading is the curse of childhood, yet it is almost the only occupation you can find for children. Emile at twelve years old, will hardly know what a book is. (1979, p. 117)

Unlike Locke, whose empiricism predisposed him to view with suspicion anything not taken directly from experience, Rousseau's opposition to the book is much broader. He

"hates" books and calls reading a "curse" because he is against the excesses of culture and artificiality themselves. But this by no means implies that he wishes Emile, the young hero of his educational novel, to grow up illiterate. Instead, Rousseau paradoxically declares that "I am almost certain that Emile will know how to read and write perfectly before the age of ten, precisely because it makes very little difference to me that he knows how before he is fifteen" (p. 117). Despite his express contempt for the book and the culture of reading and writing, it is apparent that in the final analysis, Rousseau is ambivalent. This ambivalence can be traced in his other books (whose publication is perhaps ironic in itself), and down to the reading habits of his own time. These appeared to be little different from those of Locke's era. In his own *Confessions*, for example, Rousseau himself writes of his own childhood fascination with books, and his youthful indoctrination in the "bizarre and romantic notions," they provided—ideas, he says, "which experience and reflection never cured me of" (as quoted in Darnton, p. 227).7 In addition—and again ironically— Rousseau's famous romantic novel, La Nouvelle Héloïse, effectively unleashed a flood of similarly bizarre and romantic experiences and symptoms among his readers. Many were so emotionally affected that they complained of "seizures," being convulsed by "sharp pains," and of near "madness" (as quoted in Darnton, pp. 242-243).

The perspective of the *longue durée* allows us to see that similar reading symptoms were still were still a matter of great concern some 250 years later. One 1915 article from the *British Medical Journal* describes a widespread "reading mania" as a kind of addiction "which may be compared to the effects of the drug habit on the nervous system.... [It] makes a man [live] in world of dreams and illusions... [and] forget his duties to his family and to society" (Unknown, n.p.; e.g., see: Figure 2). At this point, reading seemed not so much to threaten one's health or soundness of mind in childhood, but rather to represent a distinctly medicalized and adult "mania" of distraction and addiction—perhaps like gambling or alcoholism today. This addiction should also be seen as somewhat different from the emotional injury and victimization of earlier reading experiences of Rousseau's and Locke's time in that it was no longer limited to a relatively small reading elite. It had instead become a mass phenomenon, involving not only exponentially larger numbers of people, but also vastly greater quantities of readily-available books and other reading material.

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⁷ Speaking of the young Rousseau's absorption in books, Darton adds: "He *became* the heroes that he read about, and he played out the dramas of antiquity in his Genevan apartment as if he had lived them in Athens and Rome. In retrospect it seemed to him that this experience had marked him for life... he never learned to distinguish between literature and reality. (p. 227; emphasis added)



Figure 2 Book culture under the conditions of the mid to late 19th century in Europe. A young "reading-impassioned" (*leselustige*) nanny (*Kindsmädchen*) rushes ahead with her reading, leaving her tiny charge crying in the street behind her. The subtitle reads: "an image of a particular type rendered according to the customs of the times." (From the Deutsche Nationalbibliothek, Leipzig. Photo by author, 2012).

An increase in reading material at this time is certainly noted by John Dewey—a figure whose views on education and the book simultaneously reaffirm and extend those of Rousseau and Locke before him. Take for example his book *Schools of To-morrow*, written with his wife Evelyn, and published in the same year the "reading mania" article appeared in *British Medical Journal*. Here they specifically highlight "the immense cheapening of printed material and the immense increase in the facilities for its distribution" (Dewey & Dewey, 1915, p. 242). The two Deweys go on to argue that these developments are a key factor in simultaneous changes occurring in the school:

Consequently the schools do not any longer bear the peculiar relation to books and book knowledge which they once did[. Out of school conditions have... gained immensely in the provision they make for reading matter and for stimulating interest in reading. It is no longer necessary or desirable that the schools should devote themselves so exclusively to this phase of instruction... merely learning the use of language symbols and of acquiring habits of reading is less important than it used to be... (pp. 242-243)

The Deweys' denigration of the role of the book in education, it should be noted, is different from the "bibliophobia" of Rousseau or Locke before him: Yes, Dewey, like Locke and Rousseau, is in favor of providing students with more direct, experiential contact with life outside of reading and study. But as Dewey himself was well aware, he was living under rather "general social and intellectual conditions" (Dewey & Dewey, p. 229) that were quite different from earlier ages. These are ones, as Dewey himself put it, in which "the immanent intellectual life of society [had] quickened and multiplied" (1989, p. 317). Unlike

Locke and Rousseau, Dewey was writing in an era in which information sources *other* than books and printing had exploded on the scene. And these new sources and modes of information dissemination are mentioned with remarkable insistence and consistency by Dewey, especially "radio... telephone [and] telegraph"—which he typically highlights alongside innovations in printing and transport (Dewey 1929, p. 2).8 The total result of these varied technological changes, as Dewey explains somewhat figuratively, is that the "capital handed down from past generations, and upon whose transmission the integrity of civilization depends, is no longer amassed in those banks termed books, but is in active and general circulation" (1898, p. 316). Reading and books were clearly no longer the *only* way to get information: One could hear it on the radio, learn of it over the telephone, and even listen to it being transmitted at the speed of light via telegraphic dashes and dots. And all of these epochal changes, forever destroying the epistemic monopoly of the print and book, took place largely within a 50-year period.

One important result of this early multiple-media "deluge" of information, Dewey and Dewey explain, is that for children in the progressive classroom,

reading is not ... an isolated exercise; it is a means of acquiring a much-desired object. Like climbing the pantry shelves, its difficulties and dangers are lost sight of in the absorbing desire to satisfy the mental appetite ...Hence, the actual learning to read is hardly a problem; children teach themselves. (Dewey & Dewey 1915, p. 22)

Reading, in other words, is no longer the single, isolated channel for enjoying a story or satisfying one's curiosity; it is instead something that could be supported or figuratively "scaffolded" by the early explosion of media and information that Dewey saw as occurring all around him.

At the same time, when viewed from the perspective of the *longue durée*, Dewey appears to share something with the equally eminent critics of books and reading who came before him. Specifically, he appears to be echoing the ambivalence expressed by Rousseau as a novelist and a critic of letters, or even Locke as a writer of philosophical tomes, tracts and treatises. It is precisely *because* children are protected from reading—because (for example) "Emile at twelve years old will hardly know what a book is"—that they flourish and that reading itself will be "hardly a problem." In the specific case of Dewey, it is at a time of reading addiction that reading appears as something learned almost automatically. And this is not because of any ingrained familiarity with books and reading, but precisely due to their diminished importance in society and in childhood itself.

⁸ As further examples, in *Schools of To-morrow*, John and Evelyn Dewey list "railways and steamboats... cars, telegraphs, and telephones..." as making science education important in schools (p. 246). In his famous *Democracy and Education* (1916), Dewey references "railways, steamboats, electric motors, telephone and telegraph, automobiles, aeroplanes and dirigibles" (p. 224) in a similar context. Finally, earlier in his *School and Society* (1907), Dewey narrates how "learning has been put into circulation" by multiple inventions, including "the locomotive and telegraph, [and] frequent, rapid, and cheap intercommunication by mails and electricity" (pp. 39-40).

A final example of simultaneous antipathy to the book and affirmation of reading can be found almost exactly a century after Dewey's pronouncement, near the close of the 20th century. It is presented in the work of Seymour Papert, a tireless advocate for personal computers in the classroom, from their earliest appearance in the 1980s through to the world wide web. In his 1993 *The Children's Machine*, however, Papert focused on a transitional moment between these two developments. This is the emergence of the multimedia computer—using CD-ROMs to combine interaction with text, images, sound and video—which Papert called the "Knowledge Machine." He predicted that this new technology would open up a new realm of specifically *informal "media*-based knowledge acquisition" (1993, p. 12, 17; emphasis added). Given the technological developments in his own day, Papert was able to be even bolder than Dewey in his dismissal of the age-old monopoly of reading and the book:

In the literature on education there has long been a pervasive tendency to assume that reading is the principal access route to knowledge for students. The educational development of children is... seen as rigidly dependent on learning to read in a timely way. The prospect of the Knowledge Machine suggests that this basic assumption may not necessarily be true for all time, and indeed may start to unravel within a decade or two. (1993, p. 9)

Papert, like Dewey before him, saw new technologies and technical configurations as offering children entirely new channels of information and thus as changing the meaning and importance of reading itself. Indeed, we could say that we have been witnessing the "unravelling" of the order of reading and print that Papert presciently foresaw. The book, for example, has not only been demoted from being the *sole* avenue to knowledge (as Dewey observed), it is also no longer its *primary* source (as Papert is asserting). Now, in our own age of audiobooks and instant news updates, the book can be seen as one that is entirely optional if not superfluous. Finally, uncannily echoing Rousseau and Dewey, Papert predicted that despite the apparent threat the "Knowledge Machine" posed to the book and to reading, children would easily learn to read precisely because there is no necessity "to know what a book is," as Rousseau put it. Such machines, Papert assured his readers, would enable students to learn both reading and mathematics in what he referred to as a "non-formalized way:"

Giving children the opportunity to learn and use mathematics in a nonformalized way of knowing encourages rather than inhibits the eventual adoption of a formalized way as well, just as the Knowledge Machine, rather than discouraging reading, would eventually stimulate children to read. (p. 17)

Much like Dewey's young students learning to read like "climbing the pantry shelves"—or Rousseau's Emile knowing "how to read and write perfectly" precisely because he has never seen a book—Papert is asserting that his Knowledge Machine would lead the child to literacy precisely because it is never prioritized or taught in a "formalized way." But again,

technological and "mediatic" conditions were different in Papert's time just as they were in Dewey's, and further back, in Rousseau's era: Not only had a great deal of knowledge entered into "in active and general circulation" as Dewey observed—thanks to television, computers, and perhaps most significantly, the internet—but reading itself was taking on a rather different form and status. There simply was no reading mania the 1980s or 1990s, no widespread disorder that doctors were comparing "to the effects of the drug habit on the nervous system," or that adults later complained had ruined their childhoods. Instead, when it came—and today still comes—to literacy, it is not an *excess* or *surplus* of reading that is of principal concern, but rather a deficit or dearth. It is not the disease of reading mania that now concerns parents and doctors, but disorders and other conditions that *prevent* reading.

Today, we calculate the national and international costs of *non*-reading, dyslexia and illiteracy into the billions; one out of every ten students is diagnosed with a reading disability, and this is seen as placing as many as "700 million children and adults worldwide at risk of life-long illiteracy and social exclusion" (Dyslexia International 2014, p. 2). Over the last few decades, the percentage of high school graduates in the US below "basic reading level" has increased 5%, and the mean SAT verbal score among graduates headed to college has dropped by 8% (MLA).9 Moreover, instead of comparing reading addiction to the effects of a "drug habit on the nervous system," reading advocates unapologetically seek to cultivate addictions that they compare to drug dependency in their young readers. Fiction and comic books in particular have been described by the likes of Art Spiegeman as indispensable as "gateway drugs" to reading (as cited in Gavigan, K. & Albright, 2015, p. 46). We are also told that "any book that helps a child to form a habit of reading, to make reading one of his deep and continuing needs, is good for him" (e.g., as quoted in: Peace Corps, 2012, p. 45; emphasis added). Also, now that we are confronted by a wide range of variations on Papert's multimedia "knowledge machines"—from smartphones and tablets to Xboxes—we know that these technologies tend not to "stimulate children" to learn to read as Papert predicted. What is now visible is something that does not seem to have been apparent in 1762, 1898 or even in 1993: Namely that reading and interest in books are *not* accomplished precisely by their being ignored or neglected. Nor are these abilities and interests something to which use of newer media forms inevitably lead.

Instead, as is now widely acknowledged, such achievements are hard won. It happens, we are told, when children are exposed to books early and often, starting at an age that comes well before they might start to read themselves. Reading books to even very young children at bedtime, letting them play with books of cloth and laminated "board books," are all seen as helping to cultivate a "love of reading" in children. As they get older, picture books and first readers—e.g. Dr. Seuss, *The Little Engine that Could*—helps cultivate an awareness of

⁹ SAT refers to the Scholastic Assessment Test, which seeks to assess high school students' readiness for university and college.

what reading experts identify as the all-important "alphabetic principle." This is the idea that words and letters correspond to sounds familiar from spoken language (e.g., Byrne & Fielding-Barnsley, 1989). Subsequent genres of children's books—from "chapter books" to young adult novels—take the young reader still further until they merge with adult readers in their engagement with texts like *Catcher in the Rye* or the *Harry Potter* or *Twilight* series. In this sense, as Postman incisively observes, childhood itself—as well as its progression through various reading materials—can be understood as "a description of a level of symbolic achievement. Infancy end[s] at the point at which command of speech was achieved. Childhood [begins] with the task of learning how to read...." (1993, pp. 46; emphases in original).

Technology and Change: School as a Media-Resistant Polis

When seen from both a popular and an educational perspective, both reading and the book have clearly changed over the *longue durée*. Book-reading has very gradually shifted from being an act of worshipful memorization to then become one of apparently hallucinatory emotional excess among cultured elites, and a danger, especially to the young. Next, it appeared as a mass phenomenon somewhat akin to a drug-induced addiction. And in the contemporary era, it appears to have been transformed to become similarly medicalized. However, instead of something to be reduced and controlled, it something to be jealously protected and cultivated—again, above all for the young.

This last claim is not supported simply by the dangers of dyslexia and falling reading performance, however: It is also buttressed by recent statistics from the book market. As previously mentioned, sales of children's book represent a major exception to the overall decline of the codex as both a form and a commodity. Recent reports specifically on sales of children's books use words like "soaring" or "record-breaking;" they speak of a "children's book boom" that is "buck[ing] the trend" in the book market overall (e.g., Gilmore 2015; Kirch 2019). Children's book sales, however, are not merely an aberration in publishing; they increasingly appear to constitute whatever change or positive news there is be had in this industry. "Children's share of print markets" as one report noted, "is averaging 34% across the board internationally. In Australia and New Zealand, it's almost 50%" (Gilmore, 2015). In 2016 in the US, fully half of the top ten titles sold by Amazon.com were children's books: Harry Potter and the Cursed Child came in first; the early reader First 100 Words was third, followed by Oh, the Places You'll Go!, Diary of a Wimpy Kid, and the early childhood board book, Giraffes can't Dance (coming in at 5th, 6th) and 8th, respectively). One could go so far as to say that books for children are increasingly what "the book," under contemporary conditions, is becoming. Parents seem eager to expose their children to reading as a precondition to the acquisition, as Postman puts it, of "the sort of intellect we expect of a good reader: a vigorous sense of individuality, the

capacity to think logically and sequentially" (1993, p. 46). Many parents are aware that their children require exposure to books—even if these same parents may themselves comfortably pursue life largely without them. The book, one could say, appears to be gradually becoming not so much the "concrete form" of "the Western *episteme*," or "the most powerful object of our time" (Houston 2016, n.p.; Kittler 2015, p. 38). Instead, it is becoming an object that—like toys, colored pencils or braces—belongs above all to childhood and youth.

This implies, as Dewey has already noted, that the school itself is also changing—but now it appears this is happening not so much in synchrony with new technological developments, but rather in a kind of counterpoint to it. The new, "centrifugal" dynamic of the networked screen is not simply being inevitably and openly adopted in schools and by educators. As just one example, in recent years, from New York to Norway, from France to Australia, legislation has come into force banning mobile phones from schools and classrooms.¹⁰ Although such an artificializing and even alienating move would in principle be anathema to progressive educators like Dewey and Rousseau, and to many of today's constructivists and practitioners of authentic education, it is not foreign to educational discourse more broadly. Conservative critics of the school—such as Hannah Arendt or Michael Oakeshott have long seen the school as deliberately unworldly, even *in*authentic. Arendt, for example, regards these institutions as positioned "in a certain sense against the world," providing "special protection and care" for the child or young person (1954, p. 186; emphasis added). And Oakeshott argues eloquently for "the school and university" to be seen as "places apart"— "sheltered places where excellences may be heard because the din of local partialities is no more than a distant rumble." (1989, p. 24). These and more recent school critics (e.g., Pinar 2004; von Hentig 2002) can ultimately be seen as making the case the school both can and should represent a kind of "counter-culture," a counter-public sphere (Gegenöffentlichkeit; Böhme, 2006, p. 31). Decrying the general corruption of public discourse as a whole, William Pinar, for example, has argued that the public sphere has to be recreated, in effect in miniature, within the school and classroom: "Our professional obligation" as teachers, he writes, "is the reconstruction of the public sphere in education" (2004, p. 4; emphasis added). As Böhme (2006, p. 40) has perceptively observed, such critics effectively argue for "a protective and compensatory conception of the school," one "established in opposition to a modern world of new media." School, against "the din of local partialities," should present itself as a watchful "counter-society," a "mediaecological" version of the ancient Greek Polis or city-state. It is to become, as Böhme puts it, a "media-resistant polis" (medienresistente Polis: Böhme, 2006, p. 41): Just as the ancient Athenians built fortifications to ward off invading forces, today's schools must protect their own discursive space from the influence of so much new media distraction and "fake news." Of course, the vision of the "media-resistant polis" does not mean that the

¹⁰ New York City imposed a strict ban in 2015, which has subsequently been modified (Blau & Eisinger 2019); see also: The Local, 2019, regarding Norway; Busby, 2018, regarding France; Hurworth, 2019, on Australia.

school abandon all media, but rather that their use of media be both conservative and selective. Classrooms are still to retain their white- or black-boards, papers and books, and (above all for some critics) certain modes of open oral exchange and dialogue.

In the context of the school as a "media-resistant polis," the book as an *episteme*, as the most powerful object of our time, is still further reconfigured. Not only does the book become ever more emphatically an object proper to the world of the child, it also becomes one that the growing child gradually *leaves behind*. For the codex form no longer prepares the young for an *adult* world that is *also* full of books or that is even necessarily marked by the deferred gratification of disciplined reading. Instead, the function of the book now appears strangely truncated. Like the training wheels of a child's first bike, it serves largely as a preliminary and preparatory device—one that is later abandoned for more freewheeling, authentic activity of text exchanges and twitter feeds.

Correlatively, the school and its forms can also be said to be changing—but only in very gradual and subtle ways. At least this is what is visible when this institution, as well as reading and the book, is viewed in terms of the changes and permutations proper to the *longue durée*. For such changes to become visible, it indeed appears necessary to become accustomed to a "slower tempo," an almost motionless pace of change. It requires sensitivity, for example, to gradual changes in the history of reading and of informational circulation, and a careful awareness of changes in educators' views of the book and reading in relation to these other media. For such changes in access to and modes of reading reach back not only as far as the invention of the telegraph and typewriter, but as this paper has suggested, as all the way to the invention of the printing press itself. And what this *longue durée* shows is not so much the triumph of literacy, led by education and by inevitable technological change, but rather centuries of disordered reading and reading disorders—ones with which education and educators have had at best a complex and conflicted relationship.

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